

IV. *The Rhynchophorous Coleoptera of Japan. Part IV.* Otiorhynchidæ and Sitonides, and a genus of doubtful position from the Kurile Islands.* By DAVID SHARP, M.A., M.B., F.R.S., etc.

[Read February 5th, 1896.]

ALTHOUGH the collections of *Coleoptera* made by Mr. Lewis in Japan are of great interest, and are the base of almost all that we know of the *Rhynchophora* of Japan, yet it is, I think, tolerably certain that as regards the *Curculionidæ* proper—as distinguished from *Anthribidæ*, *Scolytidæ*, and *Brenthidæ*—they are very incomplete, and I am inclined to believe that the *Otiorhynchidæ* of Japan will prove to be twice or three times more numerous in species than the lists made from Mr. Lewis's collections will show.

Under these circumstances it appears scarcely worth while to discuss the question of geographical distribution, particularly as our knowledge of the *Rhynchophora* of China, of Korea, of Mongolia, and the region round the mouth of the Amur, is very small indeed. I may, however, remark that the Japanese *Otiorhynchidæ* have very little affinity with those of the European region. I here enumerate fifty-eight species belonging to twenty-six genera. Not one of the species is the same as an European one; while of the twenty-six genera fifteen appear at present to be peculiar to Japan, and only five have representatives in Europe, and of these five it is tolerably certain that four will prove to be more characteristic of Eastern Asia than of the palæartic region proper. The genus *Otiorhynchus* is the most characteristic genus of the Mediterranean Curculionidous fauna, where it has altogether nearly six hundred species; but it is not represented in Japan. Indeed, the only points that appear to give this section of the Japanese fauna any claim to connection with the European one is the existence of a considerable number of species of

* Part I., see the Transactions for 1889; Part II., Transactions, 1891; Part III. (by W. F. H. Blandford), Transactions for 1894.

Phyllobius in each, and the possession by Japan of a species of *Scythropus* allied to the European *S. mustela*.

I very much regret the delay that has occurred in the preparation of this paper, which was commenced several years since; and also that I shall not be able to continue the work for some time to come. But I hope that Mr. Lewis, who besides forming his splendid collection, has himself done so much towards working out the insects he procured, may be able to complete our knowledge of the *Curculionidæ*.

OTIORHYNCHIDÆ.

This term I use in the sense of Leconte and Horn, classification of Col. of N. America, 1883. It is very different from the Otiornychides of Lacordaire. I have, however, admitted an exception in the case of the genus *Meotiorhynchus*, which does not possess the scars on the mandibles, that is the special character of the family *Otiornychidæ*, according to the American taxonomists. I adopt two divisions, *Otiornychidæ apteræ* and *O. alata*, which, practically, are almost equivalent respectively to the Divisions I. and II. of the N. American writers, as explained in the Biol. Centr. Amer., Col. IV., pt. 3, p. 87.

OTIORHYNCHIDÆ APTERÆ.

This division was not recognized as distinct from the winged forms by Lacordaire, consequently its members were distributed throughout the Brachyderides and Otiornychides of the Belgian naturalist in so complex a manner as to render the application of his nomenclature to the divisions proposed by Leconte and Horn almost impossible. At the same time I do not know enough of the forms dealt with by the American naturalists to enable me to judge whether the Japanese wingless Otiornychidæ would enter satisfactorily into their divisions, and I therefore adopt the plan of arranging the sixteen genera that have been discovered in Japan in the following manner:—

1. Thorax with ocular lobes. Group I. *Ophryastina*; *Pseudocneorrhinus* and *Calomycterus*.
- 1'. Thorax without ocular lobes.
 2. Scrobes lateral, elongate, directed inferiorly, so that their lower margin passes to the under edge of the rostrum without being directed towards the eye.
 3. Front margin of thorax with a few hairs (vibrissæ) directed forwards under and behind the eye. Group II. *Copanopachys*, *Meotiorhyuchus*, *Piazomias*, *Scepticus*.
 - 3'. Front margin of thorax without vibrissæ. Group III. *Amystax*, *Blosyrus*, *Catapionus*, *Trachyrhinus*, *Trachyphlæosoma*.
- 2'. Scrobes lateral, not directed inferiorly, but towards the eye. Group IV. *Episomus*.
- 2''. Scrobes more or less superior and foveiform. Group V. *Myosides*, *Arrhaphogaster*, *Asphalmus*, *Omoiotus*.

GROUP I.

PSEUDOCNEORRHINUS.

Pseudocneorrhinus, Roelofs, Ann. Soc. ent. Belgique, xvi. (1873), p. 177, and *op. cit.*, xxiv., 1880, p. 10.

The position this genus should occupy is in the *Ophryastina*, where it will form a division separated from the American forms by the connate claws. Mr. Roelofs first placed it in the *Leptopsides*, of which the *Ophryastina* formed, according to Lacordaire, a separate division. With *Trachyphlæus* the genus has but little affinity, as it possesses well-marked ocular lobes, connate claws, and very deep scrobes.

1. *Pseudocneorrhinus bifasciatus*, Roelofs, C.R. Soc. ent. Belg., xxii., p. liii, and Ann. ent. Belg., xxiv., p. 12.

This is distinguished from its congeners by the very rotund form of the elytra, which are almost circular in their outline; the antennæ are very short; and the upright setæ on the elytra are fine, short, and minute.

Main island; Osaka, 14 July, 1881, Hakone, Miyanoshta, Kuwada, Kawatchi.

2. *Pseudocneorrhinus obesus*, Roelofs, Ann. ent. Belg., xvi., p. 177, pl. iii., fig. 10, and xxiv., p. 11.

The individuals of this species are the largest of the genus; the elytra are broad and very convex, and in outline are intermediate between *P. bifasciatus* and *setosus*; the erect setæ are much larger than in *P. bifasciatus*.

P. obesus appears to be scarce, but altogether Mr. Lewis has obtained ten specimens; the only localities I can record for it are Kiga and Miyanoshita, on the Main island.

3. *Pseudocneorrhinus setosus*, Roelofs, C.R. ent. Belg., xxii., p. liii., and Ann. ent. Belg., xxiv., p. 12.

Closely allied to *P. obesus*, but rather smaller and considerably narrower, and with the erect scales on the elytra broader than in either of the congeners.

Kiushiu and Main islands; Ichiuchi.

4. *Pseudocneorrhinus minimus*, Roelofs, C.R. ent. Belg., xxii., p. liii., and Ann. ent. Belg., xxiv., p. 13.

This comes near to *P. obesus*, but the individuals of that species are the largest, those of *P. minimus* the smallest, of the genus: besides this, the antennæ are considerably shorter in *P. minimus*.

Roelofs described the species from two specimens found by Mr. Hiller. In his recent journey Mr. Lewis captured four examples.

Main island; Kawatchi, Yokohama.

CALOMYCTERUS.

Calomycterus, Roelofs, *op. cit.*, xvi., p. 175.

1. *C. setarius*, Roelofs, *l. c.*, pl. iii., fig. 9.

A remarkable and apparently very rare species for which I am not able to record any exact locality.

GROUP II.

COPANOPACHYS.

Copanopachys, Roelofs, Ann. Soc. ent. Belgique, xxiv., 1880, p. 7.

1. *Copanochys tigrinus*.

Piazomias tigrinus, Roelofs, Ann. ent. Belgique, xvi., 1873, p. 161; *C. tigrinus*, Roelofs, *op. cit.*, xxiv., 1880, p. 7.

About twenty examples of this species were found at Hakodate: most of them agree with M. Roelofs' descriptions satisfactorily; but five of them belong to a well-marked variety, in which the upper surface is almost uniform pallid grey, the maculation of the elytra and thorax being nearly absent. Scarcely any two specimens of the type-form agree exactly in the maculation.

2. *Copanopachys griseus*.

Piazomias griseus, Roelofs, *op. cit.*, xvi., 1873, p. 162;
C. griseus, *id.*, xxiv., p. 8.

I have before me about a score of examples that I refer to this species, though they vary enormously in colour, greatly in size, and somewhat in minute structural characters. All, however, differ from *C. tigrinus*, in having the eyes more convex, and the front tibiæ not in the least dilated externally at the apex. One of them in colour exactly resembles the typical form of *C. tigrinus*, while on the other hand, the smaller examples are wonderfully like *Scepticus insularis*.

Main island; Enoshima, Kawatchi, Yokohama (in April), Kobè. One specimen from each locality. The others were all obtained during Mr. Lewis's earlier visits, and the localities have not been preserved, but, no doubt, all are from the islands south of Yezo, while *C. tigrinus* is—so far as we know at present—confined to that island.

MEOTIORHYNCHUS, n. gen.

Mandibulæ ad apices transversim laminatæ; tibiæ anteriores apicibus dilatatis.

Mandibles at the apex, forming as it were a prominent lamina, the front edge of which is quite thin and the outer angle the most prominent part; without scar; nearly similar to one another: buccal cavity large, filled by the mentum. Rostrum short, scrobes definite and deep, lateral and descending. Antennæ short, scape broad at the extremity, 7th joint of the funiculus almost amalgamated with the club. Eyes oval, moderately distant from the thorax. Prosternum a little emarginate, front margin irregularly ciliate, the ciliæ below the eye longer, so as to form rudimentary vibrissæ. Metasternum short. Hind coxæ widely separated, the intercoxal abdominal process being broad and truncate. First and second ventral plates elongate, third and

fourth quite short, together not so long as the second. Anterior tibiæ a little enlarged at the apex both internally and externally; hind tibiæ broad at the tip, with a large external space bordered both internally and externally by very short thick spines; third joint of tarsus normally lobed and densely pubescent beneath. Claws moderate, free.

This genus is a most anomalous one, and in the present condition of the classification of the *Curculionidæ*, its position must remain an open question; it could be placed quite satisfactorily in the *Otiiorhynchidæ* were it not that no mandibular scar exists: the mandibles, indeed, are so formed at the apex, that no deciduous pieces could be seated on them; while their sharp front and prominent angles, may perhaps be found to be a functional substitute for the deciduous pieces. This structure of the mandibles, added to that of the tips of the hind tibiæ, distinguishes the genus satisfactorily from *Copanopachys*, which is unquestionably its nearest ally; the two genera possessing a great similarity of facies.

1. *Meotiorhynchus querendus*.

Elongato-ovalis, niger, fusco-griseo-squamosus, limbo irregulariter pallido; opacus. Long, 10-10½ mm.

Rostrum short and broad, rugose in front, with a deep channel on the middle; eyes moderately prominent; antennæ short and stout. Thorax rather long, curvate at the sides, obsoletely sculptured, covered with very small sordid scales, with an obscure channel on the middle. Elytra elongate, quite narrow at the base, where, however, they just exceed the width of the base of the thorax, thence becoming broader for about one-fourth or one-fifth of the length; acuminate at the apex, finely striate, covered with minute scales, which are of an almost uniform dark colour, except at the sides where they become more or less pallid, though in a very variable manner. Legs stout; apex of hind tibiæ very large.

Mr. Lewis procured a small series of this very interesting insect at Hakodate, in Yezo. One of the specimens is a very beautiful variety in which the upper surface is maculate, somewhat as in *Copanopachys tigrinus*, with numerous pallid marks, the scales that are almost uniformly dark in the typical form, being, moreover, metallic. This example is a little smaller than the others, and slightly different in outline, so that it may possibly prove to be of a distinct species.

PIAZOMIAS, Schönherr.

1. *Piazomias velatus*, Chev.?

Piazomias velatus, Roelofs, Ann. Soc. ent. Belgique, xvi., 1873, p. 164.

I enter this in the Japan list, solely on the authority of M. Roelofs, who says of it, "Très commun au Japon." There are, however, no examples of it in the Lewis collection. Indeed, I have not yet seen any Chinese example of the genus that agrees with the Japanese exponents, and Chevrolat described the species from China.

2. *Piazomias lewisii*, Roel.

Piazomias lewisi, Roelofs, Ann. Soc. ent. Belgique, xxii., 1879, C.R., p. liii.

This species was not described in M. Roelofs' first paper on Japanese Rhynchophora, and I think it possible that it was this insect he alluded to in his first paper, under the name of *P. velatus*: in which case, the latter name should be withdrawn from the Japanese catalogue.

According to Mr. Lewis's collection, this is by no means a prominent insect in the Japanese Coleopterous fauna; he found a few specimens in the island Kiushiu, in April, and one at Kobè, on the south coast of the Main island.

SCEPTICUS.

Scepticus, Roelofs, *op. cit.*, xvi., 1873, p. 158.

1. *Scepticus insularis*, Roelofs, *l. c.*

This species has been found sparingly in various localities throughout the three islands, from Nagasaki to as far north as Sapporo.

GROUP III.

AMYSTAX.

Amystax, Roelofs, Ann. Soc. ent. Belgique, xvi., 1873, p. 159.

1. *A. fasciatus*, Roelofs, *l. c.*, p. 160, pl. ii., fig. 2.

A few specimens only have been obtained of this species. It is apparently very variable, but the material does not enable me to decide certainly that there is more than one species. Two individuals (without exact locality) have the elytra longer, and narrower, of a very dark colour, and marked behind the middle with two separated spots instead of a fascia.

Kiushiu, at Nagasaki and Ichiuchi in April.

BLOSyrus, Schönherr.

1. *Blosyrus japonicus*, n. sp.

Niger, fusco-squamosus, sordidus, antennis piceis, prothorace brevi, medio carinulato, elytris globosis, interstitiis leviter convexus. Long. $6\frac{1}{2}$ mm.

Antennæ short, third joint scarcely longer than the second. Rostrum very short, not longer than broad, flat, with distinct angular transverse depression in front of the eyes. Thorax short and broad, very strongly transverse, rounded at the sides, with an obscure carina on the middle, most distinct in front; the surface squamose; with a few very minute shining granules. Elytra much broader than the thorax, convex and globose, with series of rather coarse punctures, the interstices broad, slightly convex, and set with very short setæ.

The sculpture and clothing in this insect are more or less obscured by the dirt with which the insect becomes covered. There is a longitudinal channel on the middle of the head in two examples; in two others it can scarcely be detected, perhaps owing to its being obliterated by dirt mixed with an exudation.

Awomori and Sapporo: four specimens.

CATAPIONUS.

Catapionus, Schönh., Gen. Curc., vi., 2, p. 245; Roelofs, Ann. ent. Belg., xvi., p. 155.

M. Roelofs has examined the type species of this genus, and has informed us that the *C. viridimetallicus* of Japan is certainly congeneric with it. He has also called attention to some errors in Lacordaire's description of the genus, and has added three other species from Japan: I should certainly not have recognized Lacordaire's description of the genus as being applicable to

these Japanese insects, had it not been for M. Roelofs' investigation. The genus is very closely allied to *Cneorhinus*, whereas Lacordaire places it in the Barynotides; but, as I see no reason to doubt the correctness of the conclusion M. Roelofs arrived at, I accept it; as also his decision that the other species he describes, as belonging to the genus should really be placed in it. The *Cneorhinus? nodosus*, Motsch., was not known to M. Roelofs, but it has been obtained by Mr. Lewis during his recent journey, and should, I think, also be associated with the other species of *Catapionus* at present. Although very different in appearance and in several details of its structure from the *C. viridimetallicus*, it is approached in so many points by *C. clathratus*, Roel., that I hesitate to make it a new genus.

1. *Catapionus nodosus*.

Cneorhinus? nodosus, Motsch., Études ent., ix., 1860, p. 21.

Dermatodes nodosus, Harold, Deutsche ent. Zeitschr., 1877, p. 359.

Nikko, Subashiri, Miyanoshita.

The species has been received by Mr. J. H. Leech from China (Kiu-Kiang and Ichang), and I have an individual in my collection labelled as being from Assam.

C. nodosus has the rostrum broader at the apex, and more angularly prominent on each side, the mandibles are shorter, and each elytron is strongly lobed at the base. Harold's subsequent reference of this insect to *Dermatodes* was certainly erroneous.

2. *Catapionus clathratus*, Roel.

Catapionus clathratus, Roelofs, *op. cit.*, xvi., 1873, p. 157.

This was described from a single specimen. In 1881 Mr. Lewis procured a small series of examples at Nagasaki, Kashiwagi, and Otsu, in the months of June and July. There is very little variation amongst them, though the species has been found in two of the islands.

3. *Catapionus modestus*, Roel.

Catapionus modestus, Roelofs, *t. c.*, p. 156.

This is at present the rarest species of the genus. I have before me three examples found at Nikko and Shimonosuwa, on the Main island.

4. *Catapionus obscurus*, n. sp.

Niger, griseo-squamosus, plus minusve obscure fusco-variegatus; prothorace rugoso, medio obsolete sulcato; elytris interstitiis alternis paululum magis elevatis. Long. cumque rostro, 7-9 mm.

This is closely allied to *C. gracilicornis*, Roelofs, but is much smaller, and has shorter antennæ, with the third joint only about half as long. The rostrum is nearly parallel-sided, a little broader in front: the third joint of the antennæ is a little longer than the second; the club is black, in marked contrast to the other parts: the rostrum has, on the upper part, an indistinct lateral groove on each side, in addition to the vague median depression. The thorax is narrower in front than at the base, but little rounded at the sides, the base nearly truncate. Elytra with rounded shoulders and fine serial punctures.

Found during the month of August, 1881, at several localities in the centre of the Main island: seventeen examples.

5. *Catapionus gracilicornis*, Roel.

Catapionus gracilicornis, Roelofs, *op. cit.*, xvi., 1873, p. 157.

This was described from a single individual found at Hakodate; it appears to be the least rare of the species in the northern parts of the Archipelago.

Hakodate, Sapporo, Junsai, all in the island of Yezo.

6. *Catapionus viridimetallicus*, Motsch.

Cneorhinus viridimetallicus, Motsch., *Études. ent.*, ix., 1860, p. 21; *Catapionus viridimetallicus*, Roelofs, *Ann. Soc. ent. Belgique*, xvi., 1873, p. 155.

Yezo; Hakodate, Sapporo: very common.

TRACHYRHINUS, gen. nov.

Corpus rugosum, sordidum, sat elongatum, setis erectis parce vestitum. Scrobæ laterales, latæ. Antennæ scapo sat elongato setoso, apicem versus crassæ.

Distinguished from *Trachyphlæosoma* by the more elongate rostrum, with longer scrobes, and by the comparatively elongate form of the body. The mandibular scars are distinct, the scrobes are very broad, owing to the arching of their upper margin, which causes them to encroach a little on the upper face of the rostrum, but the general direction and position of the scrobes is that of the *Brachyderides*, rather than that of the *Otiorrhynchides*: there are no ocular lobes or vibrissæ, the eyes are rather small, nearly circular not prominent. The nasal plate is extruded so as to form an abrupt prominence. Femora not dentate: claws small, not connate. Metasternum very short: second and third abdominal sutures extremely deep; second segment equal in length to the part of the first segment that lies behind the coxæ. Tarsi rather small: tips of hind tibiæ slender, minutely mucronate.

This insect has somewhat the facies of *Trachyphleus*. It may be described as a connecting link between *Amystax* and *Trachyphlæosoma*. It differs from the former by the scrobes which are broader, attain the eye, and are somewhat visible from above. The abrupt prominence of the nasal plate is peculiar.

1. *Trachyrhinus sordidus*, n. sp.

Piceus, suboblongus, rugose sculpturatus, setosus, parcius obscureque squamosus; prothorace sat elongato, medio canaliculato. Long. 5, lat. 1½ mm.

Antennæ obscure red, scape rather long, with very distinct erect setæ on the lower margin, 2nd joint rather long, 3rd a little shorter, 4-8 differing but little in length, the 8th slightly broader than the preceding, about as long as broad; club oval, moderately long and stout. Nasal plate small but peculiarly prominent, placed entirely in front of the antennal insertions: front of rostrum rather broad, rugose; eyes entirely lateral, rather distant from the thorax. Thorax nearly as long as broad, slightly narrower than the elytra, curved at the sides and a little narrowed behind, coarsely and very deeply rugose. Elytra rather narrow, very little narrowed in front, very coarsely sculptured, but covered with an exudation mixed with dirt, which obscures also the small scales; the erect setæ very distinct, slightly clavate. In the male there is a deep

oblong impression on the metasternum and first abdominal segment: the apical ventral segment is prominent, and broadly but vaguely impressed. The female is of less elongate form, and has the breast unimpressed.

Nagasaki, in April: a dozen examples.

TRACHYPHLEOSOMA = (*Trachyphleops*, Roel.), n. syn.

Trachyphleosoma, Wollaston, Ann. Nat. Hist., iv., 1869, p. 414; *Trachyphleops*, Roelofs, Ann. Soc. ent. Belgique, xvi., 1873, p. 165.

I can find very little to distinguish as species the St. Helena *Trachyphleosoma setosum*, Woll., from the Japanese *Trachyphleops setosus*, Roel., and as genera I can see no distinctions. It therefore becomes necessary to change the name of the latter species as being later. The genus has only a superficial resemblance with *Trachyphleus*, next to which it is usually placed.

1. *Trachyphleosoma roelofsi*, n. n.

Trachyphleops setosus, Roel., t. c., xvi., p. 166, pl. ii., fig. 5.

Nagasaki, in March: apparently very rare.

GROUP IV.

EPISOMUS, Schönherr.

Episomus, Schönherr, Disp. Meth., 1826, p. 126; Pascoe, J. Linn. Soc. Zool., xi., p. 163.

1. *Episomus turritus*.

Lagostomus turritus, Schönh., Gen. Curc., i., p. 613; *Episomus turritus*, Roelofs, Ann. Soc. ent. Belgique, xvi., p. 164.

This species has been, after several misconceptions as to its position, referred to *Episomus*. It may be probably separated as a distinct genus (with *E. mundus*), but this may be left undecided at present.

E. turritus appears to be a common insect in China, and is probably not rare in the Southern parts of Japan. One of Mr. Lewis's specimens is labelled "found only on *Aralia maximowiczii*." It is a very variable insect in colour, size, and, to a less extent in sculpture. I have it from various localities in China, including Kiu Kiang (Pratt) and Shanghai.

2. *Episomus mundus*, n. sp.

Squamosus, subtus cretaceo-albidus, supra fuscus, utrinque late albido-plagiatus, apiceque albido, antennarum apice nigro; supra vage sculpturatus, hand tuberculatus. Long. 14 mm.

Slightly smaller than *E. turritus*, with more slender limbs, and at once distinguishable by the absence of tubercles on the elytra. The surface is very densely covered with extremely minute scales, and the system of coloration is more like that of *E. turritus* than of other species of the genus. There is a single very deep groove along the middle of the rostrum, but no lateral rugæ. The thorax has no transverse folds or grooves, and it is only obsoletely and sparingly rugose, but there is a broad longitudinal impression along the middle consisting of two parts separated on the disc. The elytra seen in profile, are at first flat or nearly so, but then rise greatly so as to be very convex; they are sculpture with series of irregular, large, not deep pits, separated only by quite small interstices. A single specimen only has been found of this elegant insect, it does not appear to be related to any species but *E. turritus*.

Yuyama, in Kiushiu, May 12th, 1881.

GROUP V.

MYOSIDES.

Myosides, Roelofs, Ann. Soc. ent. Belgique, xvi., 1873, p. 164.

This genus comes near to *Cænopsis*, from which it is distinguished by the larger interval between the eye and the scrobe, the former being placed also nearer to the thorax.

1. *Myosides seriehispidus*, Roelofs, Ann. Soc. ent. Belgique, xvi., p. 165, pl. ii., fig. 4.

Apparently not uncommon, about Nagasaki in March; two specimens were also met with on the Main island at Miyanoshita in April.

2. *Myosides pyrus*, n. sp.

Dense fusco-squamosus, subpyriformis, setis erectis tenuibus parce vestitus; elytris minus brevibus, basin versus fortiter angustatis. Long. 3½ mm.

Antennæ piceous, with elongate scape. Rostrum moderately long, very densely squamose except on the very definite angular space that limits the nasal plate; the tip very distinctly broader. Eyes round, slightly prominent. Thorax short, not much more than half as broad as the elytra, densely squamose, but with minute setæ placed in punctures that are concealed by the squamosity. Elytra narrow at the base, but becoming much broader behind, convex, finely striate, very densely squamose, with erect, moderately long, slender setæ. Legs piceous, moderately long, setose and feebly squamose.

This little weevil somewhat resembles *Episomus* in its general form. By the expanded tip of the rostrum it differs considerably from *M. seriehispidus*, and approaches *Peritelus*. Probably a distinct genus should be established on it. The claws are not connate.

A single individual was met with at Nikko, Main island, in June.

ARRHAPHOGASTER.

Arrhaphogaster, Roelofs, Ann. Soc. ent. Belgique, xvi., 1873, p. 163.

The affinity of this genus appears to be with *Phlyctinus*. It differs from *Celeuthetes* by the scrobes being anterior instead of lateral. From *Phlyctinus* it is distinguished by the scrobes being foveiform instead of linear. The claws are not connate. The scar of the mandible is not very large, but is distinct on the left side, less so on the right one.

1. *Arrhaphogaster pilosus*.

A. pilosus, Roel., Ann. Soc. ent. Belg., xvi., p. 164, pl. ii., fig. 3.

Yokohama, April 1880: rare; Roelofs, *l.c.*, records it from Hakodate on Yezo.

ASPHALMUS, gen. n.

Antennæ anteriores, scapo sat elongato. Rostrum brevissimum, haud pterygiatum. Femora dentata. Corpus setis tenuibus depressis vestitum.

The insect for which I propose this new genus is similar in appearance to the European *Omius bohemanii*, from which it is distinguished by the scrobes whose

posterior part encroaches on the front of the rostrum, so that they are separated only by a prominent, somewhat narrow, space; by the dentate femora and by the body being clothed with depressed instead of erect setæ. From *Arrhaphogaster* it is distinguished by the smaller interval separating the scrobes above and by the dentate femora. The eyes are quite small, but rather prominent, and are placed far in front of the thorax. The latter is without trace of vibrissæ or ocular lobes. The prosternum is only about half as long as the notum, the coxæ being placed almost at its front margin. The metasternum is extremely short; the hind coxæ are very widely separated. The abdominal sutures are moderately deep. The tips of the hind tarsi are very slender. The claws are small, equal, connate. These characters bring the genus somewhat near to *Peritelus*, though the two are not all similar. The Japanese insect is distinguished by the form of the rostrum and scrobes, and the hair-like clothing of the body.

1. *Asphalmus japonicus*, n. sp.

Fusco-rufus, pube grisea depressa, parce vestitus; prothorace densissime, ruguloso-punctato; elytris profunde crenato-striatis, interstitiis convexis. Long. 4, lat. 2 mm.

Rostrum very short, eyes placed almost half-way between the front of the thorax and the base of the antennæ. Scape moderately long, sub-curved, thickened from base to tip. Head densely punctured, sub-foveolate above the eyes. Thorax very densely, not coarsely rugose-punctate. Elytra convex, ovate, much broader than the thorax, with rather broad and deep crenate striæ, the interstices convex, and furnished with depressed pallid hairs. Ventral segments shining, with only distant and rather fine punctuation. Tooth of front femora quite distinct, of the hind almost imperceptible.

Of this distinct insect eight specimens were met with on the Main island at Shiba in Tokio, in May, 1880.

Omoiotus, n. gen.

Ex affinitate generis Otorhynchi. Corpus parvum fere nudum. Femora omnia dentata. Scrobes magnæ, antennis superne parum late distantes. Oculi parvi, fortiter convexi. Tibiæ tenues, apicibus nullo modo dilatatis.

The small weevil for which I establish this genus, has the facies of an *Omius*, such as *O. concinnus*, but it appears to be more closely allied to *Otiorynchus*, of which it might form a sub-genus, were it not that the scrobes of the antennæ in their upper part encroach more on the front of the rostrum, and are consequently less widely separated than in *Otiorynchus*.

Antennæ moderately long, scape slender at the base, much thicker at the apex, extending beyond the front margin of the thorax. The rostrum short, thicker at the apex, distinctly pterygiate, the true scrobes quite short and convergent, but the rostrum above them excavated, so that the front of the rostrum is in the middle comparatively narrow. Eyes small, very convex. Front coxæ almost imperceptibly separated. Mentum with a short peduncle, and not filling the buccal cavity. Mandibular scars small but distinct. Third and fourth ventral segments not very short. Front femur with a large tooth, middle and hinder with smaller teeth. Tibiæ slender at tips, the posterior with two excessively minute spurs at the lower angle.

1. *Omoiotus ovatus*.

Gracilis, testaceus, capite thoraceque dense punctatis, illo inter oculos foveolato; thorace elongato, elytris multo angustiore; his fortiter, regulariter, seriatim punctatis, interstitiis leviter convexis. Long. 4 mm.

Second and third joints of antennæ rather elongate, the latter a little the longer, slender. Rostrum and head very densely punctate, the former short, but little longer than broad, without nasal plate, with a small deep fovea between the eyes; these remote from the thorax, very prominent. Thorax rather long and narrow, slightly longer than broad, curved at the sides, a little broader at the base than in front; densely rather coarsely punctate, rugose at the sides but not along the middle. Elytra rather slender, ovate, the series of punctures remarkably regular, each puncture rather large, the interval between each and the next very small: the interstices extremely regular, and bearing some minute depressed hairs; the series of punctures are ten, the outer one being placed very near to the margin, and obsolete behind. Ventral segments shining, almost smooth.

Two specimens were found, but the exact locality has not been recorded. This little insect is of considerable interest owing to its great approximation to the European

genus *Otiorhynchus*. It is, in fact, all that has been discovered in Japan to represent the great genus that has several hundred species in Europe.

OTIORHYNCHIDÆ ALATÆ.

The Japanese species of this division are not very numerous, but it is probable that a good many others remain to be discovered.

There is but little difficulty in distinguishing the genera. These are eleven in number, and may be tabulated as follows:—

Prothorax without ocular lobes or vibrissæ.

Claws connate.

Scrobes visible from front.

Rostrum with prolonged front angles . . . *Diallobius*.

„ simple, as usual at tip *Phyllobius*.

Scrobes entirely lateral *Scythropus*.

Claws free.

Scrobes widely separated.

Antennæ longer than the body *Eumyllocerus*.

Antennæ not longer than the body.

Second joint of antennæ short . . . *Macrocorynus*.

„ „ „ long *Myllocerus*.

Scrobes separated on upper surface by only a small space.

Rostrum with a recurved process at tip . *Anosimus*.

„ without „ „ „ . *Hyperstylus*.

Prothorax with vibrissæ or ocular lobes.

Prothorax with vibrissæ but not lobes . . . *Chlorophanus*.

„ without vibrissæ, but with lobes.

Rostrum rather slender, broader at tip . . *Phytoscaphus*.

„ thick, not broader at tip *Canoicus*.

PHYLLOBIUS, Germar et Auct.

The Japanese species of this genus appear to be numerous, and I have no doubt others will have to be added to those here mentioned.

The species are far from being closely allied to those found in Europe, though the existence of the genus in Europe and Japan, and its representation in each of the two provinces by numerous species, is the chief character that could be cited as evidence of an affinity between the Otiorhynchid faunæ of Europe and Japan.

1. *Phyllobius longicornis*.

P. longicornis, Roelofs, Ann. Soc. ent. Belgique, xvi., p. 166.

The male of the insect I identify as this species, has the trough, or gouge-shaped depression, on the terminal ventral plate very deep, and the preceding two segments are more or less deeply, broadly impressed; the first abdominal segment is only slightly impressed on the middle, and the metasternum has no angular prominence on either side of the median impression. The front tibiæ have only a slight sinuation of the inner margin below the middle; the hind tibiæ have a very feeble concavity of the inner face of the apical part. The head has only a slight swelling of the surface posterior to the eyes. The antennæ are very long; the upper surface of the insect is rather densely covered with minute green scales, and there is no long pubescence.

M. Roelofs did not at first distinguish between this species and *P. prolongatus*, and most of his specimens in the Lewis collection belong to the latter species. Altogether I have examined eight specimens of *P. longicornis*: the localities are Nikko, Yokohama, Oyama, and Miyanoshta, on the Main island; Hakodate in Yezo.

2. *Phyllobius prolongatus*.

P. prolongatus, Motsch., Bull. Soc. Moscow, 1866, i., p. 180.

I accept, as representative of this species, an individual in Mr. Lewis's collection, determined by one of the German authorities who examined Herr Hiller's Japanese Coleoptera.

P. prolongatus is closely allied to *P. longicornis*, and is densely covered with golden-green scales, but has the male characters much less remarkably developed, the depression of the last ventral plate being comparatively slight, and the preceding two segments being simple; the tooth of the front femur is considerably smaller, and all the femora are less swollen. In the female the ventral segments are more bare than they are in *P. longicornis*.

I have seen twenty specimens of this species; they vary a good deal in colour and in the vestiture. Most of the series were procured at Nikko, but the species was also met with at Miyanoshita, Higo, Bukenji, Oyama, and Awomori.

3. *Phyllobius armatus*.

P. armatus, Roelofs, Ann. Soc. ent. Belgique, xviii., C.R., p. cxxviii.

This species was described by M. Roelofs from a single pair, found by M. Van Volxem, and was not represented in the first collection made by Mr. Lewis. I refer to the species six examples found by Mr. Lewis at Nikko, Tokio, and Oyama. The insect is rather more robust, and has a broader after-body than its allies, and is distinguished, in addition to the remarkable characters of the male, by the conspicuous, soft, upright pubescence with which the body is clothed. In addition to the remarkable structure of the male front tibiæ, described by M. Roelofs, it should be noticed that the hind tibiæ have a slight excavation on the apical portion of the inner face, that the metasternum and first abdominal segment are impressed, but that the apical ventral segment is not trough-like, but vaguely irregularly impressed. It is not noticed in M. Roelofs' description that the antennæ are in larger part black, and that there is a vague, denuded black stripe, along the side of each wing-case.

4. *Phyllobius annectens*, n. sp.

Gracilis, niger, viridi-squamulatus, pube laxa, erecta, minus dense vestitus; antennis elongatis, tenuibus, ex parte rufis. Long. 8-9 mm.

This is allied to *P. armatus*, and is distinguished from other species, except the one mentioned, by the erect, soft pubescence clothing the body. The front tibiæ of the male are like those of *P. armatus*, but are more slender; while on the other hand the hind tibiæ are more evidently dilated at the tip, and more deeply emarginate on the inner face. The abdominal characters of the male are like those of *P. armatus*, but the apical ventral plate is more regularly depressed in a longitudinal

manner along the middle. The female may be distinguished from the same sex of *P. armatus* by the narrower form, the absence of a denuded stripe on the side of the wing-case, while in general appearance it is intermediate between the species named and *P. longicornis*.

Nikko and Kashiwagi, in June.

5. *Phyllobius rotundicollis*.

P. rotundicollis, Roelofs, Ann. Soc. ent. Belgique, xvi., p. 167.

This remarkable species is distinguished by the peculiar ashy or cinereous clothing of the upper surface, which has a more or less indistinct metallic shimmer, but is entirely absent from a broad stripe on the side of the wing-case: the clothing is more like hair than scales. The eyes are very convex, and the head above them is much swollen. There is great difference between the sexes. The apical ventral segment of the male is broadly and deeply impressed, and the segments in front of it are also more or less impressed, as well as the hind part of the metasternum. The teeth on the femora are elongate and spiniform.

P. rotundicollis is apparently a rare insect, and has only been met with at Nagasaki. It occurs in early spring: April 12th, 1881.

6. *Phyllobius nigritus*, n. sp.

Nigricans, hard squamosus. pube tenuissima erecta parce vestitus, pedibus antennisque rufo-obscuris, his tenuibus, perelongatis. Long. 7 mm.

This species differs from the other Japanese *Phyllobius* hitherto brought to light by the absence of scales or coloured hairs, resembling in this respect the European *P. oblongus*, to which, however, it is, in other respects, but little allied. The antennæ are as slender as those of any species I have seen of the genus, and are also very long; the club is particularly slender, and is acuminate. Head coarsely rugose, inflated above the eyes, depressed between these, which are very convex. Thorax very densely rugose-punctate, opaque. Elytra with very regular series of punctures, the interstices slightly con-

vex; the very fine hair is quite short in front, but on the apical part is longer and more conspicuous. The femora are each armed with a remarkably prominent tooth, that on the middle and hind femora being more abrupt and spine-like than usual.

The male differs much from the female, being of more long and slender form, with the antennæ somewhat longer and the femora more inflated. The breast and the first ventral plate are depressed in the middle, and the terminal ventral segment is broadly, rather deeply impressed; there are slight depressions on the penultimate and antepenultimate segments.

Hitoyoshi in Kiushiu, May 8th, 1881: a small series.

[*Phyllobius picipes*.]

P. picipes, Motsch., Études ent. ix., p. 20 (1860);
Desbrochers, Abeille, xi., 1873, p. 660.

Motschoulsky's description is of little importance, but he remarks that the species is 4–5 mm. long, that it resembles *P. argentatus*, and that the eyes are "subprominuli." Desbrochers' description was made from a specimen sent by Motschoulsky to Jekel; and of this Desbrochers says that the eyes are "très-saillants, très-détachés." This renders it clear that Motschoulsky mixed together at least two very distinct species—the prominence of the eyes being of very great importance in the Japanese *Phyllobii*—and I think his name should be consigned to oblivion.

7. *Phyllobius japonicus*.

Minor, niger, sat dense viridi-squamosus, pedibus autennisque rufo-obscuris, his clava nigra. Long. 5 mm.

? *Phyllobius japonicus*, Faust, Stett. ent. Zeit. l., 1889,
p. 221.

Distinguished from the other species by smaller size, and by stouter, less elongate antennæ, as well as by the almost total absence of external sexual distinctions. The clothing consists of minute, brilliant green scales, which, however, are not closely placed, and of short pubescence, which is fine and not erect, and therefore inconspicuous. The eyes, though strongly prominent, are not so much so as in the various preceding species. The form of the

rostrum and scrobes is that of *P. calcaratus*. The scape is strongly bent, moderately long and stout, the club rather short; there is no swelling over the eyes. The thorax is small, much narrower than the elytra, nearly straight at the sides. The elytra are rather long and narrow, and have no denuded lateral stripe. All the femora are dentate, the tooth being rather broad and short; the hind tibiae are somewhat cut away on inner face of their lower half, and this part is minutely crenate or tuberculate.

Kashiwagi, in the southern part of the Main island, June 20th, 1881 : a small series.

Two females have no metallic coloration, the elytra being covered with a fine pubescence somewhat as is *P. nigritus*. I consider them to be only a variety of *P. japonicus*.

P. japonicus was described by Faust from a single example, said to be of the female sex. It is not quite clear from the description that it is certainly this species, but I cannot reconcile Faust's description with any other, except this species.

8. *Phyllobius polydrusoides*, n. sp.

Squamulis lete viridi-micantibus dense vestitus; antennis scapo in medio abrupte curvato, fere angulato. Long. 5 mm.

This is a very remarkable species, of which only one example has been found. It has the appearance of a *Polydrusus* more than of a *Phyllobius*, and the head has a marked angular prominence on each side over the eyes, much the same as in *Polydrusus pterygomalis*. The scape is short, nearly black, just before the middle abruptly bent, the outer part incrassate, the club short, and not acuminate. Rostrum very short, the scrobes not definite, but attaining the eye; this latter convex very remote from the thorax, the front of the rostrum quite flat. Thorax rather small and short, brilliantly scaled. Elytra covered with scales of a beautiful green colour, without any admixture of pubescence, the series of punctures quite distinct, the external one deeply impressed at the tip, and broader, so as to mark off there a sort of inferior margin. Legs black, clothed with some setæ, tarsi piceous. Femora each armed with a slender tooth, that on the anterior being minute.

This species might be separated as a distinct genus. A single example only was found at Kashiwagi, June 19th, 1881.

9. *Phyllobius incomptus*, n. sp.

Dense griseo-squamosus, in elytris maculis obscuris indistinctis subvariegatus, antennis rufis; femoribus vix incrassatis, dente minuto armatis. Long. $5\frac{1}{2}$ –6 mm.

This appears to be somewhat allied to *P. pomona*, though of a different colour and with a longer rostrum. The upper surface is densely covered with adpressed scales, without any mixture of pubescence: the scales are of a very pallid grey colour, and on the elytra are very faintly mottled by some irregularly distributed darker patches. The antennæ are unicolorous, pale red. The thorax is short only slightly curved at the sides, and a little narrowed towards the front. The elytra are rather long, become distinctly broader behind, and notwithstanding their dense clothing of scales have very evident punctate-striæ. The under surface is densely squamose. The legs are pale red, but much clothed with scales and setæ, there is a distinct tooth on the middle and posterior femora. I do not see any sexual differences.

Miyanoshita.

10. *Phyllobius leechi*, n. sp.

Dense griseo-squamosus, hand variegatus, antennis rufis; femoribus in medio leviter incrassatis, nec angulatis, nec dentatis. Long. 5 mm.

This is extremely closely allied to *P. incomptus*, but must be separated on account of the unarmed femora.

I have a single specimen from the late Mr. Pryer's collection, given me by J. H. Leech, Esq., and there is a specimen in Mr. Lewis' series of *Phyllobius* found by him at Kashiwagi on 16th June, 1881. The specimen from Mr. Pryer's collection has the antennæ considerably shorter than they are in *P. incomptus*, or in the example of *P. leechi* from Kashiwagi.

DIALLOBIUS, n. gen.

Generis *Phyllobii* proxime affinis. Rostrum apice lato, pterygiatum, angulis anterioribus acutis, breviter recurvatis.

This genus has the facies of the densely scaled species of *Phyllobius*—*P. pomonæ*—*e.g.*, but the peculiar dilatation of the apical part of the rostrum, by which the scrobes are made anterior and entirely exposed in front, is diagnostic. The structure of the parts of the mouth appears to be much the same as that of *Phyllobius*, the mentum is, however, rather less slender, so that the maxillæ are not exposed; the minute labial palpi are, however, seated on the front of the mentum and quite free. There is no trace of either vibrissæ or ocular lobes.

The species of this genus seem to be of great rarity.

1. *Diallobius inornatus*, n. sp.

Dense argillaceo-squamosus, vix variegatus, antennis rufis, femoribus dentatis. Long. $4\frac{1}{2}$ –6 mm.

Antennæ rather stout, scape scarcely surpassing the front margin of the thorax. Club, rather short, oval, solid, but with the sutures visible. Rostrum very densely and evenly squamose, eyes rather large, scarcely prominent, separated by a long distance from the thorax, this latter short, slightly curved at the sides, and evidently narrower in front than at the base. Elytra very densely squamose, without any pubescence, the series of fine punctures very distinct notwithstanding the squamosity. Under surface also densely squamose, but the clothing is on the abdomen less perfect, on the apical segment there being merely hairs, or rather setæ, instead of scales. Legs rather stout, all the femora with a definite tooth.

Two specimens found by the late Mr. Pryer. The smaller specimen is probably the male.

2. *Diallobius mundus*, n. sp.

Dense squamosus, pallidus, subviridis, antennis rufis; femoribus intermediis et posterioribus fortiter dentatis. Long. $5\frac{1}{2}$ mm.

Similar in appearance to the European *P. pomonæ* and allies; extremely densely covered with adpressed scales, of a pale colour, with a very slight tinge of green, and here and there slightly iridescent or metallic. In

most other respects extremely closely allied to *D. inornatus*, the front femora are, however, though dilated and angular beneath, provided only with a very minute tooth. The legs are red, but on their anterior aspects are densely squamose.

I have seen only two specimens of this elegant insect. They were found in the Main island at Nikko and Kashiwagi in June. It should be noticed that Mr. Lewis found at Nikko a single immature individual of a species of *Phyllobius* that resembles *D. mundus* almost exactly.

3. *Diallobius lewisi*, n. sp.

Niger, minus dense viridi-aureo squamosus, antennis pedibusque rufis, illis clava nigricante; femoribus omnibus maxime dentatis. Long. 6½ mm.

A very remarkable insect, of which only a single specimen was found, it is a male; it differs greatly from the other two species of the genus, and bears in fact a relation to the first division of *Phyllobius*, similar to that exhibited by *D. mundus* and *inornatus* to the second division. Rostrum with the broad apical part very definite, not squamose, feebly bicarinate before the eyes. Scape of antenna nearly straight, broad at the extremity, 8th joint about as long as broad, club moderately long, acuminate. Eyes moderately large, but little prominent, encroaching somewhat on the front of the head. Thorax rather large, much rounded at the sides, only a little narrower in front than behind, sparingly covered with brilliant, hair-like scales, which do not conceal the sculpture, this consists of moderately coarse and close punctures, with the interstices dull, owing to a minute coriaceous sculpture. Elytra with rows of large punctures, black and shining, with brilliant hair-like scales. Legs very peculiar, the femora flat, with extremely large triangular acute tooth; tibiæ also compressed, so as to exhibit an edge externally, the lower part of each rather deeply emarginate, so that a sort of obtuse angle is formed above the middle. Under surface, shining, black, with very little clothing.

Kashiwagi, June 22nd, 1881.

SCYTHROPUS, Schönherr.

1. *S. scutellaris*, Roelofs, Ann. Soc. ent. Belgique, 1873, p. 179.

Yokohama: four specimens. This insect is apparently really congeneric with the European *S. mustela*; it has, however, the front of the rostrum differently formed—as pointed out by M. Roelofs—and, in addition to this distinction, the remarkable fringe of setæ on the outside of the apical portion of the hind tibia is wanting in the Japanese species.

MACROCORYNUS, Schönherr.

1. *Macrocorynus discoidens*, Ol., Roelofs, Ann. Soc. ent. Belgique, 1873, p. 167.

This E. Indian species was not found in Japan by Mr. Lewis during his last visit. Previously the species was only met with at Kagoshima, so that it is probably confined in Japan to the extreme south.

MYLLOCERUS, Schönherr.

Six species of this genus, all peculiar to Japan, have been described by M. Roelofs, and I now add three others. *M. abnormalis* might, however, be placed in *Macrocorynus* with as much propriety as in *Myllocerus*.

1. *Myllocerus naso*, n. sp.

Densissime squamosus, brunneus, in clytris vage pallide-variegatus, capite inter oculos canaliculato. Long. 7 mm.

Very distinct from the other Japanese Mylloceri, and more closely allied to the Siberian *M. sibiricus*, Tourn.; readily distinguished by the structure of the apex of the rostrum; the depression of the nasal plate being much prolonged on to the rostrum, and forming above a very acute angle, surrounded by a remarkably deep and definite angular groove, which is prolonged as a fine smooth space along the middle of the rostrum, becoming more deeply impressed between the eyes, so as to form a short channel there. Scape long, rather densely setose, 2nd and 3rd joints of antenna very long, club elongate,

acuminate. Eyes coarsely faceted. Thorax much narrower than the elytra, nearly straight at the sides, and almost as broad behind as in front, the base very feebly bisinuate; the surface squamose, but with a few large punctures, rendering it uneven. Elytra densely squamose, and with minute and very short setæ, rising from among the scales; the interstices a little convex, and the series of punctures quite distinct. Legs rather long, densely squamose, slender, hind femora with a distinct small tooth, the others almost imperceptibly dentate.

Higo, a Province in Kiushiu: one specimen.

2. *Myllocerus hilleri*.

Myllocerus hilleri, Faust, Stett. ent. Zeit., 1., 1889, p. 222.

Minor, dense griseo-squamosus, variegatus, setis erectis armatus, antennis rufis, haud crassis, sat dense setosellis; femoribus dente parvo instructis. Long. 4-5 mm.

Antennæ not long, rather slender, 2nd and 3rd joints only moderately long, the 3rd scarcely so long as the 2nd. Rostrum flat in front, not carinate or impressed, eyes rather small, quite lateral. Thorax small, greatly narrower than the elytra, not in the least sinuate at the base, very slightly narrower at the base than in front; the surface densely squamose, the squamosity paler at the sides, the numerous setæ emerging from the squamosity very minute. Elytra extremely finely striate, the striæ not visibly punctate, densely squamose, the squamosity sordid grey, with some very irregular nearly white patches, and a few darker. The erect setæ very distinct. Legs slender, rather short.

This insect reminds one of the European *Pseudomyllocerus sinuatus*, but the claws are not connate. Amongst the Japanese species it can only be confounded with *Myllocerus griseus*, or *viridulus*, but is very distinct from them by the smaller thorax, smaller eyes, and by the very conspicuous setæ of the elytra. It also differs by the flat front of the rostrum, and by the extreme shallowness of the excision that forms the buccal cavity.

It was found in considerable numbers at Oyama.

Notwithstanding some slight discrepancies with Faust's description, I have little doubt this is the species he had before him.

3. *Myllocerus* (?) *abnormalis*.

Compactus, dense squamosus, variegatus, antennis pedibusque crassis, dense squamosis, illis variegatis, tibiis compressis intus subdentatis. Long. 6 mm.

This insect is remarkable from the incrassate antennæ, and Otiorynchus-like rostrum. The scape is broad, compressed, densely squamose and setose, brown, 2nd joint also brown, joints 3-7 stout, covered with white squamosity, 8-11 black, the last three forming a compact club. Rostrum broad at the tip, scrobes large, converging inwards abruptly, so that the prominent intervening space is but narrow; eyes large, rather prominent. Thorax rather large, deeply bisinuate at the base, narrowed in front, extremely densely squamose. Elytra densely squamose, in colour at the base as if scorched, on the middle pale, immediately behind the pale scales, a dark patch, the apical part coloured like the front of the body of a pale fawn colour: striation obscure on account of the squamosity. Legs very densely squamose, femora dentate. Under-surface densely clothed with pale squamosity.

Of this distinct weevil only one individual was procured. Hitoyoshi, May 5th, 1881.

4. *Myllocerus variabilis*.

Myllocerus variabilis, Roelofs, Ann. Soc. ent. Belgique, xvi., p. 168.

5. *Myllocerus castaneus*.

Myllocerus castaneus, Roelofs, p. 168, t. c.

6. *Myllocerus fumosus*.

Myllocerus fumosus, Faust, Deutsche ent. Zeitschr., xxvi., p. 261.

7. *Myllocerus nigromaculatus*.

Myllocerus nigromaculatus, Roelofs, Ann. Soc. ent. Belgique, xvi., 1873, p. 169.

8. *Mylloceris griseus*.

Mylloceris griseus, Roelofs, t. c., p. 170.

9. *Mylloceris elegantulus*.

Mylloceris elegantulus, Roelofs, loc. cit.

10. *Mylloceris viridulus*.

Mylloceris viridulus, Roelofs, t. c., p. 171.

EUMYLLOCERUS, n. gen.

Ex affinitate generis Mylloceri; antennæ tenues, corpore paulo longiores; rostrum ad apicem vix incrassatum; oculi sat prominuli, a thorace subremoti.

The very elegant insect for which I establish this genus, is remarkable for its long slender antennæ. It is densely clothed with beautiful pale green-golden scales, somewhat after the fashion of *Phyllobius* and *Polydrusus*. The scrobes are visible from the front, and have no prolongation. The mentum and the emargination for its reception, are remarkably small; there is no trace of ocular lobes or vibrissæ. The legs are slender, the femora not dentate, the claws rather large, free. The hind coxæ less widely separated than in many of the allied genera.

1. *Eumyllocerus gratiosus*, n. sp.

Dense pallide viridi-squamosus, micans; antennis rufis, valde elongatis, clava elongata, gracile. Long. $6\frac{1}{2}$ –7 mm.

Scape elongate, slender, strongly curved, all the joints of the funicle very elongate, club slender, distinctly triarticulate. Rostrum very densely squamose, nasal depression elongate and narrow, a minute elongate fovea between the eyes, these moderately large, prominent. Thorax small, as broad in front as at the base, sides a little enlarged in the middle, base feebly bisinuate. Elytra sub-inflated, densely squamose, with numerous extremely minute pallid setæ in addition to the scales, finely striate, interstices broad, slightly convex. Scutellum long. Legs slender, nearly black, but with much pale green squamosity; tarsi paler, slender. Under-side of head deeply trifoveolate, and with a fine transverse impression, passing from the outer fovea to the front of the eye.

Kioto and Kashiwagi, in the month of May: seven specimens.

HYPERSTYLUS.

Hyperstylus, Roelofs, Ann. Soc. ent. Belgique, xvi., 1873, p. 171.

1. *Hyperstylus pallipes*, Roelofs, *l. c.*, p. 172.

This elegant little weevil is very like a *Polydrusus*, but is distinguished by the scrobes being placed quite on the front of the very short rostrum.

Bukenji: one individual.

ANOSIMUS.

Anosimus, Roelofs, Ann. Soc. ent. Belgique, 1873, p. 173.

1. *Anosimus decoratus*, Roelofs, *l. c.*, p. 174, pl. iii., fig. 8.
A. pallidus, Roelofs, *l. c.*

The species exhibits two distinct forms, which I believe are the sexes, the male having the tibiæ dilated and angulate on the middle of the inner margin, and the peculiar apical process of the rostrum more abruptly elevated and prolonged. I cannot distinguish *A. pallidus* as a separate species. Neither can I treat the genus as being provided with an ocular lobe on the prothorax.

Nikko and Hitoyoshi, in May and June: apparently very rare.

CHLOROPHANUS, Germar, Auct.

Considerable difference of opinion has prevailed as to whether the peculiar chin-piece found in some members of this genus be a specific character or not. It is certainly a sexual character peculiar to the male sex, and occurring only in certain species of the genus. The females are characterised by the possession of an extremely long mucro at the extremity of the middle tibia; this sex is also provided with a peculiar structure, in the form of a very hard chitinous body, probably an ovipositor or piercing instrument, which, being frequently protruded, looks like an organ of the other sex; it is, however, bifid, whereas the œdeagus of the male is single

and acuminate. The females of several species have the last ventral plate peculiarly formed.

1. *Chlorophanus grandis*.

C. grandis, Roelofs, Ann. Soc. Ent. Belgique, xvi., 1873, p. 162.

VAR. *lugubris*, n. var. Major, long. 15 mm., obscure fuscus, elytrorum vitta laterali fere nulla.

VAR. *metallescens*, n. var. Supra læte metallicus, prothorace distincte ruguloso ; subtus pallidus.

A small series of this species was procured near Oyama, in May, 1880. Although the two varieties to which I have given names, seem at first sight very different from the type form, I feel sure that *lugubris* will prove to be connected with the usual state of *C. grandis*. I have seen only two examples of this form ; they were also found at Oyama ; a specimen found at Yokohama is apparently intermediate. Of the variety *metallescens* only a single individual was found, the locality being also Oyama ; as the sculpture of the thorax is an important character, it may possibly prove to represent a distinct species, very closely allied to *C. grandis*.

2. *Chlorophanus planus*, n. sp.

Dilute viridis, pallide pulverulens, parum convexus, prothorace elytris que vitta laterale parum discreta flavescente ; prothorace brevi, lateribus obliquis hand curvatis ; elytrorum acuminibus minus elongatis ; corpore subtus albido-viridescente. Long. 10 mm.

Pallid green, without metallic lustre. Antennæ quite short, their club reddish, the other joints black but with much white clothing. Rostrum short, a little narrowed towards the tip. Thorax not in the least rugose, base almost straight.

This species is readily distinguished from *C. grandis* by the characters mentioned above as well as by being only half the size, and by having the yellow stripe of the elytra extending over two interstices instead of one. The male has the chin-piece of the prosternum not perceptibly developed. The female has the tibial mucros much longer than they are in the male.

Nikko, June, 1880 : five specimens.

CANOIXUS.

Canoixus, Roelofs, Ann. Soc. ent. Belgique, xvi., 1873, p. 172.

1. *Canoixus japonicus*, Roel., l.c., pl., iii., fig. 7.

This very remarkable insect has not been found again. It has little or no relationship with *Corrigetus*, though it has been suggested that it is possibly identical therewith.

The locality has not been recorded, but probably the insect was found at Nagasaki.

PHYTOSCAPHUS, Schönherr.

1. *Phytoscapus ciliaris*, Roel., Ann. Soc. ent. Belgique, 1873, p. 176.

This is a true Otiiorhynchid though its appearance suggests some doubt as to this fact. It was not met with again by Mr. Lewis on his last journey.

PTOCHUS ?? OBSCURIPES.

Ptochus obscuripes, Motsch., Bull. Mosc., 1866, p. 180.

According to the description this is not a *Ptochus*, but belongs probably to the winged series of Otiiorhynchides. It appears to me impossible to identify it from the description.

SITONIDES.

SITONES, Germar, Auct.

1. *Sitones japonicus*, Roelofs, Ann. Soc. ent. Belgique, xvi., 1873, p. 160.

Sitones is one of the most difficult of the genera of Coleoptera, the species being distinguished by slight and unimportant points. I think there is more than one species in Japan, but the material yet obtained is not sufficient for a certain conclusion on this point.

EUGNATHUS, Schönherr.

The position of this genus has been quite misunderstood. It is so close to *Sitones* that it is difficult to point to good characters for the distinction of the two; but I

find that in *E. distinctus* the scrobes are more widely distant from the eyes than they are in *Sitones*.

1. *E. distinctus*, Roelofs, Ann. Soc. ent. Belgique, 1873, p. 179.

E. distinctus seems to be rather common in Japan, and varies greatly in size.

PARASITONES, n. gen.

Generis *Sitonidis* per affinis; corpus crassum, convexum, metasternum brevissimum.

I can see nothing to distinguish the species for which I establish this genus from *Sitones* except the short metasternum, and the comparatively short and convex form. I presume, from the rounded form of the elytra, and the absence of shoulders, that the species is apterous.

1. *Parasitones gravidus*.

Latus, convexus, niger, capite thoraceque parce setoso-squamosis; elytris griseo-squamosis, obsolete maculatis. Long. $6\frac{1}{2}$, lat. $3\frac{1}{2}$ mm.

Antennæ short, obscure red, the club darker, 2nd joint rather shorter than the 3rd, club acuminate. Eyes rather large, a little convex. Rostrum short, closely and deeply rugose-punctate, deeply impressed along the middle, the depression broader in front; the sculpture only slightly obscured by the griseous setosity. Thorax rather large, not so long as broad, much rounded at the sides, base scarcely at all broader than the front; the sculpture remarkably coarse, only slightly obscured by the clothing, which is intermediate between setæ and scales. Elytra broad and convex, narrowed at the shoulders, so that the base is only very slightly broader than the base of the thorax, densely clothed with minute scales, which are griseous in colour, but varied with small darker spots, somewhat after the manner of *Liophloeus nubilus*, bearing also a few short, sub-erect setæ, most conspicuous on the apical part; they are striate, and the broad interstices are slightly convex on the declivity, the striæ are punctate, at the base the punctures become very large, but this sculpture is much obscured by the clothing. Under-surface black, sparingly setose.

Hakone: five specimens.

KURILONUS, nov. gen. of doubtful position.

Mandibulæ prominentes, apicibus laminatis, rotundatis. Unguiculi liberi.

Mandibles prominent, and forming two laminate, rounded,

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divergent processes, without trace of any scar. Mentum very broad, but not entirely filling the buccal cavity, a narrow chink being left on each side; borne on a short very broad peduncle. Rostrum moderately long and broad, without nasal plate, scrobes exposed above in front, but afterwards lateral and descending, moderately broad and definite. Antennæ sub-terminal, funiculus 7-jointed, the 7th joint very abruptly separated from the club. Thorax elongate, without ocular lobes or marginal ciliæ; coxal cavities nearer to the front than to the hind margin. Front tibiæ produced internally at the tip, inner margin not denticulate. Middle coxæ slightly separated; mesosternal side-pieces sub-equal in size. Metasternum quite short. Hind coxæ not widely separated; first ventral segment behind the coxæ, only equal in length to the second, which again is but little longer than the third or the fourth, these two being almost similar. Hind tibiæ broad at the tip, but the outer margin is laminate, not cavernose. Tarsi pubescent beneath; claws rather small but not contiguous at the base.

This genus seems to be an extremely isolated one, and it would be very difficult to assign it a place in any of the divisions of Lacordaire, or of Leconte and Horn. I think it had better therefore form a distinct group to be placed between the Otiorhynchides and Cyliandro-rhinides. In appearance it is more like Otiorhynchidæ, than any other of the groups of Rhynchophora, and is, in fact, somewhat similar to an elongate narrow *Liophlæus*. The structure of the mandibles would on the N. American system, quite remove it from the Otiorhynchidæ, and I should myself take this view, were it not that in some species of the genus *Peritelus*—*P. senex*, e. g., one of the sexes has the mandibles formed in a somewhat similar manner. The genus is, however, certainly not at all allied to *Peritelus*, and it seems almost equally widely separated from *Meotiorhynchus* in which an abnormal, and again somewhat similar structure of the mandibles exists.

Kurilonus insolitus, n. sp.

Elongatus, niger, elytris hispidis, setisque minutis depressis vestitis; antennis piceis. Long. cumque rostro 11-12 mm.

Antennæ moderately long, scape thicker towards the extremity, attaining the eyes but not passing beyond them; not squamose, but bearing a few long setæ; 2nd joint of funiculus quite as

long as the 1st; club rather small, very compact, pubescent, acuminate. Rostrum narrower than the head, nearly twice as long as broad, strigose-rugose, unimpressed, with a fovea between the eyes, these moderately large, rather convex. Thorax rather longer than broad, rounded at the sides and considerably narrowed in front, covered with a peculiar dense intricate sculpture, with a narrow smooth space along the middle. Scutellum very short and broad, but quite distinct. Elytra elongate oval, base as broad as the thorax, shoulders not prominent; covered with a fine sculpture rendering the surface somewhat leather-like, and bearing, in addition to long erect setæ, some fine depressed setæ, representing scales: there is no trace of striation or punctuation. Under-surface destitute of scales; ventral segments quite shining sparingly punctate.

Mr. Lewis received five examples of this interesting insect from Ketoi one of the Kurile Islands, in 1881. It raises a lively desire to know something more of the insect fauna of these islands, of which we are at present in almost complete ignorance—at any rate, so far as the Coleoptera are concerned.